PB 209 675

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INFORMATION SERVICE
Springfield, Va. 22151

| BIBLIOGRAPHIC DATA SHEET | 1. Report No. APTD-1013 | 2. | 3. Recipient's Accession No. |
|---|---|---|---|
| 4. Title and Subtitle<br>Air Pollution Report - Federal Facilities<br>Milwaukee Intrastate Air Quality Control Region | | | 5. Report Date<br>December 1970<br>6. |
| 7. Author(s)<br>Carl Edlund | | | 8. Performing Organization Rept. No. |
| 9. Performing Organization Name and Address<br>ENVIRONMENTAL PROTECTION AGENCY<br>Air Pollution Control Office<br>Division of Abatement, Federal Facilities Branch<br>Rockville, Maryland | | | 10. Project/Task/Work Unit No.<br>11. Contract/Grant No. |
| 12. Sponsoring Organization Name and Address<br>Same | | | 13. Type of Report & Period Covered<br>14. |

15. Supplementary Notes

16. Abstracts

Federal installations are listed by State, County, and City. The amount of fuel or refuse burned per year for each installation is included. The type and amount of fuels burned in each county by Federal facilities are also tabulated. The contribution by the Federal Government to the air pollution from fixed installations in this Region is presented in a series of tables.

17. Key Words and Document Analysis. 17a. Descriptors

Air Pollution
National Government
Urban Areas
Fuels
Refuse Disposal
Inventories
Coal
Boilers
Particles
Aircraft
Carbon Monoxide
Hydrocarbons
Nitrogen Oxides
Abatement

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group 13 B

| 18. Availability Statement | 19. Security Class (This Report) | 21. No. of Pages |
|---|---|---|
| Unlimited | UNCLASSIFIED | 22 |
| | 20. Security Class (This Page) UNCLASSIFIED | 22. Price |

# AIR POLLUTION REPORT
# FEDERAL FACILITIES

## MILWAUKEE INTRASTATE AIR QUALITY CONTROL REGION

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DIVISION OF ABATEMENT
AIR POLLUTION CONTROL OFFICE
ROCKVILLE, MARYLAND

December 1970

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# NARRATIVE

## I. BOUNDARIES OF THE AIR QUALITY CONTROL REGION

The Metropolitan Milwaukee Intrastate Air Quality Control Region was designated September 18, 1969. The region is composed of seven counties within the State of Wisconsin. These counties are: Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington and Waukesha County. A map of the Region is presented in Figure I.

## II. TYPE AND NUMBER OF FEDERAL FACILITIES

There are 29 Federal installations in the Region that burn fuel or refuse. A listing of these facilities by State, County, and City is presented in Table I. Included in this table is a listing of the amount of fuel or refuse burned per year for each installation. Table II shows a breakdown of type and amount of fuels burned in each county by Federal facilities.

## III. FEDERAL CONTRIBUTION TO AIR POLLUTION

The contribution by the Federal Government to the air pollution from fixed installations in this Region is presented in a series of tables. Table III lists the amount and type of pollution the installations emit in each County of the Region. Table IV lists those specific Federal facilities ("Point Sources") which emit more than 100 tons per year of any one type of pollutant and the approximate rate at which they are polluting. Table V lists the six coal fired boilers which are in violation of 42 CFR 76.4. This table also shows the number and size of the boilers, amount of coal used, and amount of particulate emitted and allowed.

Data for the determination of the Federal Government's air pollution contribution from mobile sources other than airplanes was not available at the time of this report. Emissions from aircraft total 3 tons of particulate per year, 612 tons of carbon monoxide per year, 114 tons of hydrocarbons per year and 29 tons of nitrogen oxides per year.

## IV REMEDIAL MEASURES PROPOSED

The current (November 1970) status of the Federal installations within the Region with respect to the implementation of their abatement plans* is shown in Table VI. In this table the proposed, or needed abatement action is set forth as well as a listing of abatement measures already accomplished.

Table VII is a bargraph which indicates the expected reduction in the air pollution produced by Federal facilities when all of the abatement plans have been put into effect.

*As prescribed in the Clean Air Act and Executive Order 11507.

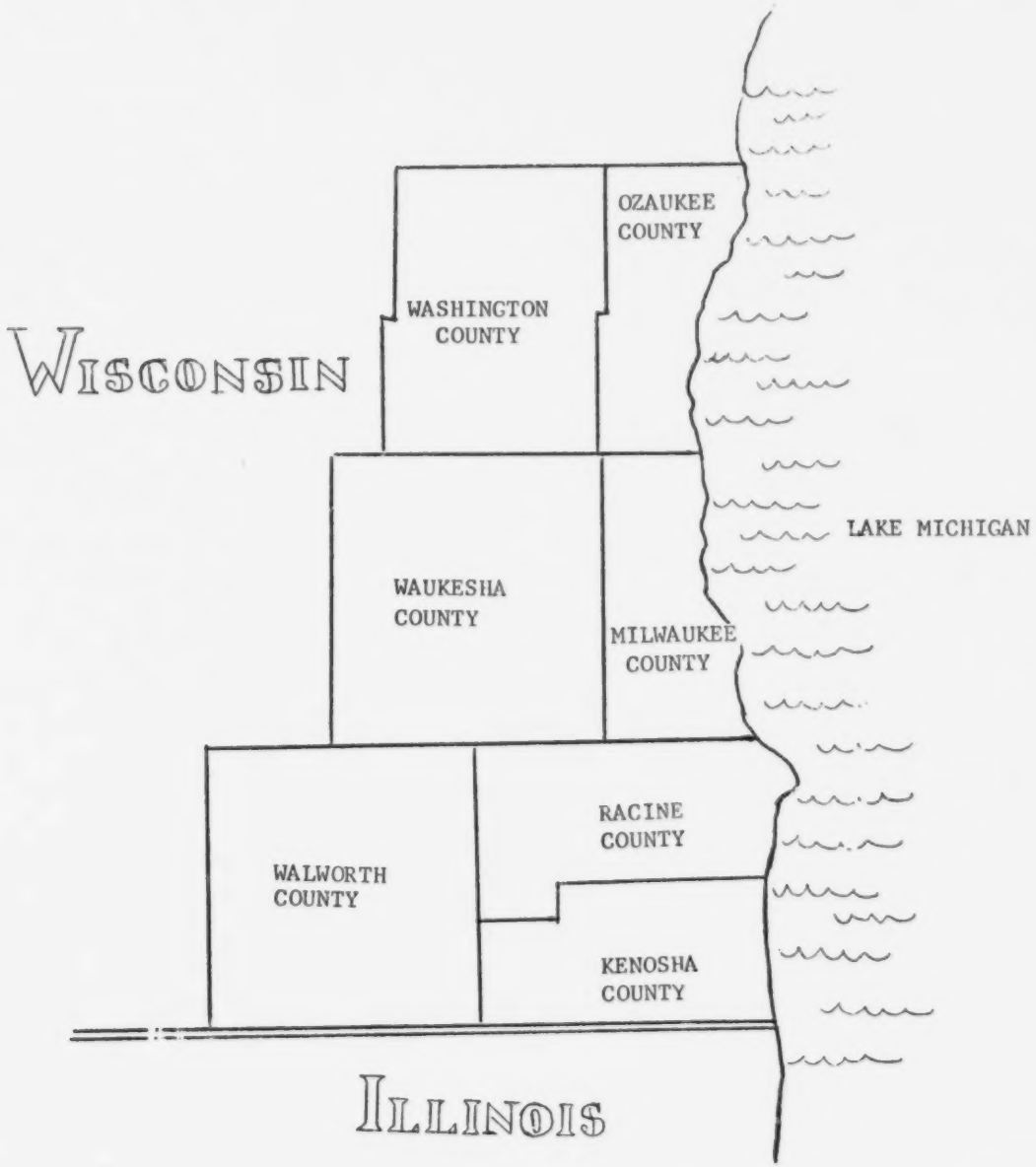



FIGURE I

BOUNDARIES OF THE
MILWAUKEE AIR QUALITY
CONTROL REGION

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

| LOCATIONS | REFUSE (LBS/DAY) | | FUELS (PER YEAR) | | | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | OPEN BURNING | INCIN-ERATION | GAS (MCF) | DIST OIL (GALS) | RESID OIL (GALS) | COAL (TONS) | |
| WISCONSIN<br>KENOSHA<br>KENOSHA | | | | | | | |
| POST OFFICE | 0 | 0 | 7780 | 0 | 0 | 0 | 5605 SHERIDN |
| KENOSHA STATION | 0 | 0 | 784 | 4221 | 0 | 0 | COAST GUARD |
| WISCONSIN<br>MILWAUKEE<br>MILWAUKEE | | | | | | | |
| USARC | 0 | 0 | 6098 | 0 | 0 | 0 | 5130 SILVER SPRINGS RD |
| USARC | 0 | 0 | 4065 | 0 | 0 | 0 | 5236 SILVER SPRINGS RD |
| USARC | 0 | 0 | 7103 | 0 | 0 | 0 | 5326 SILVER SPRINGS RD |

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

| LOCATIONS | REFUSE (LBS/DAY) | | FUELS (PER YEAR) | | | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | OPEN BURNING | INCIN-ERATION | GAS (MCF) | DIST OIL (GALS) | RESID OIL (GALS) | COAL (TONS) | |
| USARC | 0 | 0 | 5836 | 0 | 0 | 0 | SOUTH SIDE |
| NIKE 20 | 0 | 0 | 0 | 0 | 0 | 0 | NOT OPERATIONAL |
| NIKE 02 | 0 | 0 | 0 | 47137 | 0 | 0 | |
| AIR FORCE PLANT #58 | 0 | 0 | 0 | 0 | 0 | 0 | PROPERTY SOLD |
| BILLY MITCH-ELL FIELD | 0 | 0 | 0 | 10000 | 175000 | 0 | |
| MAYER BUILDING | 0 | 0 | 0 | 0 | 0 | 0 | PURCHASES STEAM |
| ARMY DISCIPLINE BARRACKS | 0 | 0 | 0 | 0 | 0 | 4300 | |

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

| LOCATIONS | REFUSE (LBS/DAY) | | FUELS (PER YEAR) | | | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | OPEN BURNING | INCIN-ERATION | GAS (MCF) | DIST OIL (GALS) | RESID OIL (GALS) | COAL (TONS) | |
| APPRAISERS STORES | 0 | 0 | 0 | 0 | 0 | 0 | PURCHASES STEAM |
| POST OFFICE & COURT HOUS | 0 | 0 | 0 | 0 | 0 | 0 | PURCHASES STEAM |
| MILWAUKEE BASE | 0 | 0 | 4525 | 0 | 0 | 0 | COAST GUARD |
| BREAKWATER LIGHT (USCG) | 0 | 0 | 0 | 0 | 0 | 0 | NO FUEL OR REFUSE BURNED |
| AIRPORT SURV RADAR STA | 0 | 0 | 0 | 0 | 0 | 0 | UNMANNED STATION |
| MILWAUKEE STATION USCG | 0 | 0 | 0 | 0 | 0 | 0 | BEING SHUT DOWN |

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

| LOCATIONS | REFUSE (LBS/DAY) | | FUELS (PER YEAR) | | | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | OPEN BURNING | INCIN-ERATION | GAS (MCF) | DIST OIL (GALS) | RESID OIL (GALS) | COAL (TONS) | |
| NORTH POINT LIGHT | 0 | 0 | 1717 | 0 | 0 | 0 | COAST GUARD |
| POST OFFICE | 0 | 0 | 1398 | 0 | 0 | 0 | NORTH 3RD ST |
| MILWAUKEE BARRACKS | 0 | 0 | 2992 | 0 | 0 | 0 | COAST GUARD |
| POST OFFICE | 0 | 0 | 1510 | 0 | 0 | 0 | E CAPITOL DR |
| POST OFFICE | 0 | 0 | 1392 | 0 | 0 | 0 | W GREENFIELD AVE |
| WISCONSIN MILWAUKEE WOOD | | | | | | | |
| VETERANS HOSPITAL | 0 | 18050 | 192 | 0 | 0 | 4150 | 54 TH & WEST NATIONAL STS |

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

| LOCATIONS | REFUSE (LBS/DAY) | | FUELS (PER YEAR) | | | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | OPEN BURNING | INCIN-ERATION | GAS (MCF) | DIST OIL (GALS) | RESID OIL (GALS) | COAL (TONS) | |
| WISCONSIN<br>OZAUKEE<br>PORT WASH | | | | | | | |
| POST OFFICE | 0 | 0 | 0 | 8300 | 0 | 0 | E MAIN ST |
| PORT WASH LIGHT | 0 | 0 | 598 | 0 | 0 | 0 | COAST GUARD |
| WISCONSIN<br>RACINE<br>BURLINGTON | | | | | | | |
| RICHARD BONG AFB | 0 | 0 | 0 | 0 | 0 | 0 | INACTIVE |
| WISCONSIN<br>RACINE<br>RACINE | | | | | | | |
| POST OFFICE | 0 | 0 | 3250 | 0 | 0 | 0 | PROJECTD USE WAS COAL USE |

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

| LOCATIONS | REFUSE (LBS/DAY) | | FUELS (PER YEAR) | | | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | OPEN BURNING | INCIN-ERATION | GAS (MCF) | DIST OIL (GALS) | RESID OIL (GALS) | COAL (TONS) | |
| USARC | 0 | 0 | 0 | 14502 | 0 | 0 | |
| RACINE STATION | 0 | 0 | 0 | 14625 | 0 | 0 | COAST GUARD |
| WIND POINT LIGHT | 0 | 0 | 0 | 0 | 0 | 0 | NO FUEL OR REFUSE BURND |
| WISCONSIN WALWORTH DELAVAN | | | | | | | |
| POST OFFICE | 0 | 0 | 3000 | 0 | 0 | 0 | EAST WALWORTH ST |
| WISCONSIN WALWORTH ELKHORN | | | | | | | |
| POST OFFICE | 24 | 0 | 10200 | 0 | 0 | 0 | WALWORTH & N WASHINGTON |

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

| LOCATIONS | REFUSE (LBS/DAY) | | FUELS (PER YEAR) | | | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | OPEN BURNING | INCIN-ERATION | GAS (MCF) | DIST OIL (GALS) | RESID OIL (GALS) | COAL (TONS) | |
| WISCONSIN<br>WALWORTH<br>LAKE GENEVA<br>POST OFFICE | 0 | 0 | 2000 | 0 | 0 | 0 | MAIN ST |
| WISCONSIN<br>WALWORTH<br>WHITE WATER<br>POST OFFICE | 0 | 0 | 1050 | 0 | 0 | 0 | CENTER ST |
| WISCONSIN<br>WALWORTH<br>WILLIAMS BAY<br>AIR FORCE GAP | 0 | 0 | 0 | 0 | 0 | 0 | INACTIVE RADAR SITE |
| WISCONSIN<br>WASHINGTON<br>HARTFORD<br>POST OFFICE | 0 | 0 | 5000 | 0 | 0 | 0 | EAST SUMNER ST |

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

| LOCATIONS | REFUSE (LBS/DAY) | | FUELS (PER YEAR) | | | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | OPEN BURNING | INCIN-ERATION | GAS (MCF) | DIST OIL (GALS) | RESID OIL (GALS) | COAL (TONS) | |
| WISCONSIN<br>WASHINGTON<br>WEST BEND | | | | | | | |
| POST OFFICE | 0 | 0 | 20000 | 0 | 0 | 0 | ELM ST |
| WISCONSIN<br>WAUKESHA<br>OCONOMOWOC | | | | | | | |
| POST OFFICE | 0 | 0 | 1715 | 0 | 0 | 0 | S MAIN ST |
| NIKE 74 | 0 | 0 | 0 | 43137 | 0 | 0 | |
| WISCONSIN<br>WAUKESHA<br>PEWAUKEE | | | | | | | |
| USARC | 0 | 0 | 0 | 14818 | 0 | 0 | |

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

| LOCATIONS | REFUSE (LBS/DAY) | | FUELS (PER YEAR) | | | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | OPEN BURNING | INCIN-ERATION | GAS (MCF) | DIST OIL (GALS) | RESID OIL (GALS) | COAL (TONS) | |
| VTAC (FAA) | 0 | 0 | 0 | 0 | 0 | 0 | UNMANND NAV AIDE |

TABLE II

ANNUAL FUEL USE BY FEDERAL FACILITIES

| | COAL (TONS) | RESID OIL (GAL) | DIST OIL (GAL) | GAS (MCF) |
|---|---|---|---|---|
| WISCONSIN | | | | |
| KENOSHA | 0 | 0 | 4221 | 8564 |
| MILWAUKEE | 8450 | 175000 | 57137 | 36828 |
| OZAUKEE | 0 | 0 | 8300 | 598 |
| RACINE | 0 | 0 | 29127 | 3250 |
| WALWORTH | 0 | 0 | 0 | 16250 |
| WASHINGTON | 0 | 0 | 0 | 25000 |
| WAUKESHA | 0 | 0 | 57955 | 1715 |
| TOTAL | 8450 | 175000 | 156740 | 92205 |

TABLE III
FEDERAL CONTRIBUTION TO AIR POLLUTION
FROM STATIONARY SOURCES
IN THE
MILWAUKEE AIR QUALITY CONTROL REGION
(IN TONS/YEAR)

| COUNTY: | SOX | NOX | CO | PART | HC |
|---|---|---|---|---|---|
| KENOSHA | 0 | 1 | 0 | 0 | 0 |
| MILWAUKEE | 166 | 92 | 65 | 156 | 5 |
| OZAUKEE | 0 | 0 | 0 | 0 | 0 |
| RACINE | 2 | 0 | 0 | 0 | 0 |
| WALWORTH | 0 | 1 | 0 | 0 | 0 |
| WASHINGTON | 0 | 1 | 0 | 0 | 0 |
| WAUKESHA | 3 | 0 | 0 | 0 | 0 |
| AQCR TOTAL | 171 | 95 | 65 | 156 | 5 |

NOTE: County pollutant rates of less than 0.5 tons per year are listed as "0".

TABLE IV

FEDERAL POINT SOURCES
(TONS/YEAR)

| | SOX | NOX | CO | PART | HC |
|---|---|---|---|---|---|
| VETERANS HOSPITAL (MILWAUKEE COUNTY) | 73 | 45 | 58 | 120 | 3 |

NOTE: A POINT SOURCE IS DEFINED AS ANY INSTALLATION WHICH EMITS MORE THAN 100 TONS PER YEAR OF ANY ONE POLLUTANT

TABLE V

COAL-FIRED BOILERS IN VIOLATION OF 42 CFR 76.4

| INSTALLATION NAME | BOILER SIZE (MM BTU/HR/EACH) | NUMBER OF BOILERS | COAL BURNED (TONS/YR/BOILER) | PARTICULATE EMITTED EA. | | ALLOWED EMISSION (IN LB/MM BTU) |
|---|---|---|---|---|---|---|
| | | | | (IN TONS/YR) | (IN LB/MMBTU) | |
| ARMY DISC. BARRACKS | 23.0 | 2 | 970 | 9.6 | 0.73 | 0.51 |
| ARMY DISC. BARRACKS | 32.0 | 1 | 1386 | 13.7 | 0.73 | 0.50 |
| VETERANS HOSPITAL | 16.0 | 3 | 1270 | 31.8 | 1.76 | 0.55 |
| VETERANS HOSPITAL | 13.0 | 1 | 340 | 8.5 | 1.76 | 0.57 |

TABLE VI

ABATEMENT PROGRAM FOR FEDERAL FACILITIES

IN THE

METROPOLITAN MILWAUKEE INTRASTATE

AIR QUALITY CONTROL REGION

LEGEND:

A. Statement of problem
B. Abatement measures proposed in the five year plan*
C. Abatement measures accomplished or in progress (blank indicates no progress as of July 1970)
D. Abatement measures needed but not reported in the plan

NOTE: Local legislation forbids the use of residual fuel oil with a sulfur content greater than 1.0%, all Federal installations have complied

MILWAUKEE COUNTY

MILWAUKEE

U.S. Army Disciplinary Barracks

1.A. Four coal-fired boilers (10-100 MMBTU/HR each) equipped with low efficiency cyclones
B. Discontinue use of coal-fired boilers when tie in with new adjacent oil-fired boiler plant (in USARC) is complete in FY 71
C.

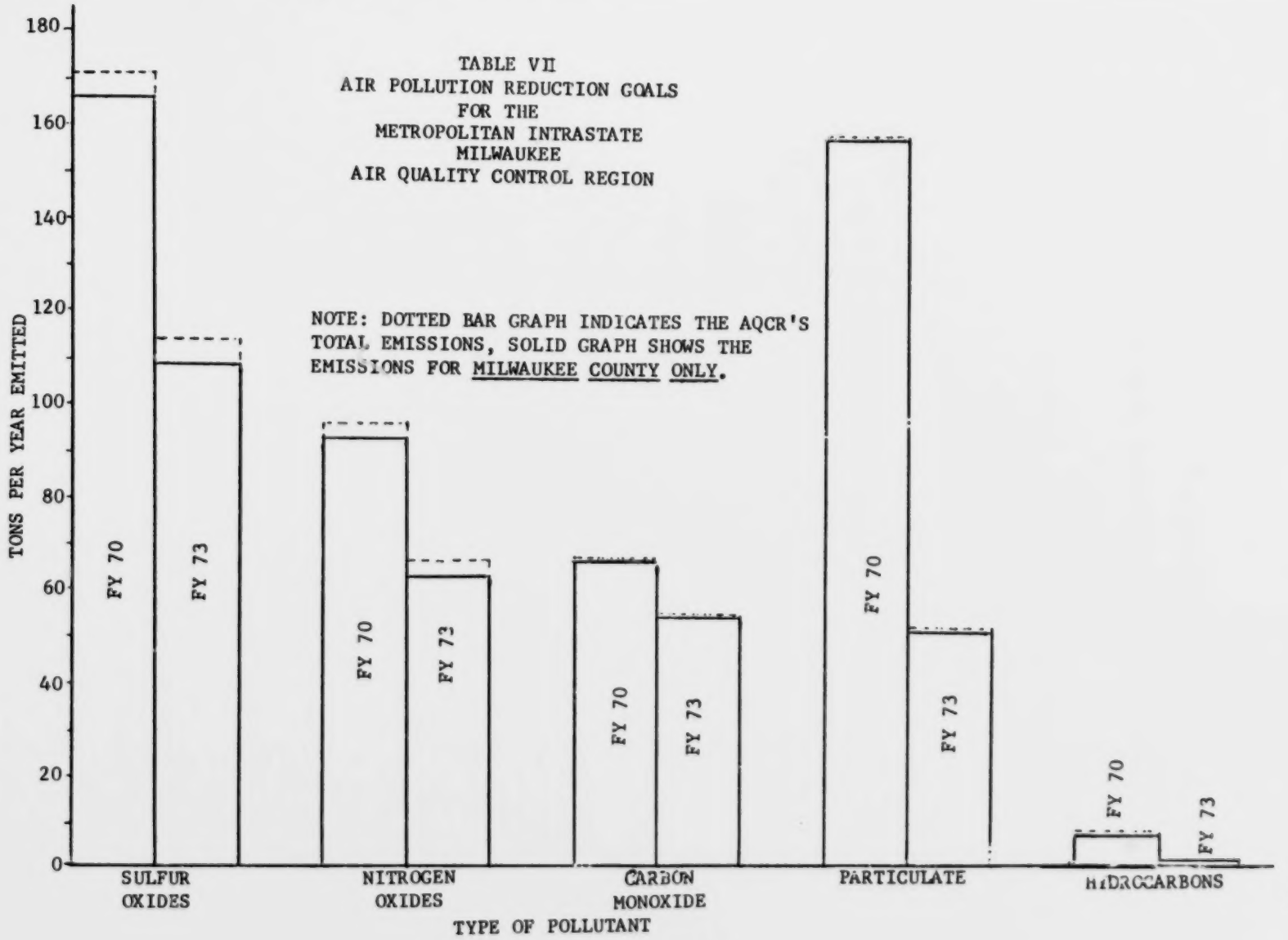
WOOD

Veterans Administration Hospital

1.A. Coal-fired boiler plant with 7 boilers (10-100 MMBTU/HR each)
B. Convert to distillate oil with natural gas standby in FY 71
C.
2.A. One 1000 lb/hr incinerator burning 9 tons of wet and dry refuse per day.
B. Replace with new incinerator capable of meeting emission regulations of 42 CFR 76.8 in FY 71
C.

*1968-1973 plan per Executive Order 11507

TABLE VII
AIR POLLUTION REDUCTION GOALS
FOR THE
METROPOLITAN INTRASTATE
MILWAUKEE
AIR QUALITY CONTROL REGION



## REFERENCES AND NOTES

1. Duprey, R.L., Compilation of Air Pollutant Emission Factors, Public Health Service Publication No. 999-AP-42, 1968.

   All calculated emissions are based on these factors.

2. Report for Consultation on the Metropolitan Milwaukee Intrastate Air Quality Control Region, Public Health Service, 1969.

   Data on emissions from all sources used to calculate percent government contribution were obtained from this report.

3. Clean Air Act, as amended (42 U.S.C. 1857 - 1857L) Sec 107, Sec 111. November 21, 1967.

4. Executive Order 11507, Prevention, Control, and Abatement of Air and Water Pollution at Federal Facilities, February 4, 1970.

5. Title 42 - Public Health, Chapter I, Subchapter F, Part 76, June 2, 1966.

6. Bureau of the Budget Circular A-76 (Revised), May 18, 1970.

*U. S. GOVERNMENT PRINTING OFFICE : 1970-436-417/111